PC Works FourPointSurround Speaker System Installation and Operating Instructions



IMPORTANT



The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within a product's enclosure that may be of sufficient magnitude to constitute the risk of electric shock to persons.

WARNING SHOCK HAZARD DO NOT OPEN

TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SUBWOOF-ER'S COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

AVIS RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

POUR EVITER TOUT RISQUE DE CHOC ELECTRIQUE, NE PAS DEMONTER LE COUVERCLE DU HAUT PARLEUR. AUCUN ENTRETIEN DES PIECES INTERIEURES N'EST REQUIS.TOUT SERVICE D'ENTRETIEN NE DOIT ETRE EFFECTUE QUE PAR DU PERSONNEL D'ENTRETIEN QUALIFIE.



The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying this product.

READ AND HEED IMPORTANT SAFETY WARNING ON BOTTOM OF SUBWOOFER ENCLOSURE

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, INSERT FULLY.

ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.



WARNING:
TO PREVENT FIRE OR
SHOCK HAZARD, DO NOT
EXPOSE THIS APPLIANCE
TO RAIN OR MOISTURE.

IMPORTANT NOTICE

The serial number for the *PC Works FourPointSurround* is located on the subwoofer. Please write this number down and keep it in a secure area. This is for your security.

IMPORTANT SAFETY INSTRUCTIONS

- READ INSTRUCTIONS All safety and operating instructions should be read before the PC Works FourPointSurround amplified subwoofer/satellite system is operated.
- **RETAIN INSTRUCTIONS** The safety and operating instructions should be retained for future reference.
- **HEED WARNINGS** All warnings on the subwoofer and in the operating instructions should be adhered to.
- **FOLLOW INSTRUCTIONS** All operating and use instructions should be followed.
- CLEANING Unplug the subwoofer from the wall outlet or other power source before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- ATTACHMENTS Do not use attachments not recommended by Cambridge SoundWorks as they may cause hazards.
- WATER AND MOISTURE Do not use the subwoofer near water—for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
- ACCESSORIES Do not place the PC Works FourPointSurround's ystem on an unstable cart, stand, tripod, bracket, or table. The subwoofer or satellites may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by Cambridge Sound-Works, or sold with the product. Any mounting of the satellites or subwoofer should

- follow the manufacturer's instructions, and should use a mounting accessory recommended by Cambridge SoundWorks.
- VENTILATION Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the subwoofer and to prevent it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. The subwoofer should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or Cambridge SoundWorks' instructions have been adhered to.
- HEAT The subwoofer should be situated away from heat sources such as radiators, heat registers, stoves, and other products (including amplifiers) that produce heat.
- POWER SOURCES The subwoofer should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
- POLARIZATION The subwoofer may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a

- safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- POWER-CORD PROTECTION Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the subwoofer.
- LIGHTNING For added protection for the PC Works FourPointSurroundsystem during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the subwoofer due to lightning and power-line surges.
- OVERLOADING Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
- OBJECT AND LIQUID ENTRY Never push objects of any kind into the subwoofer through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the subwoofer.
- SERVICING Do not attempt to service the subwoofer yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

- DAMAGE REQUIRING SERVICE Unplug the subwoofer from the wall outlet or other power source and refer servicing to qualified service personnel under the following conditions:
 - a) When the power-supply cord or plug is damaged.
 - b) If liquid has been spilled, or objects have fallen into the subwoofer.
 - c) If the subwoofer has been exposed to rain or water.
 - d) If the subwoofer does not operate normally by following the operating instructions; or exhibits a distinct change in performance.
- e) If the product has been dropped or damaged in any way.
- REPLACEMENT PARTS When replacement parts are required, be sure the service technician has used replacement parts specified by Cambridge SoundWorks or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards
- SAFETY CHECK Upon completion of any service or repairs to the PC Works FourPointSurround system, ask the service technician to perform safety checks to determine that the PC Works Four Point Surround system is in proper operating condition
- WALL OR CEILING MOUNTING The PCWorks FourPointSurround satellites should be mounted to a wall or ceiling only as recommended by Cambridge SoundWorks

PCWorks FourPointSurround

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Introduction



hank you for purchasing PCWorks FourPointSurround by Cambridge SoundWorks. PCWorks FourPointSurround lets you experience the full potential of the multichannel sound encoded in today's latest computer software. We think you will find it adds an exciting new dimension to computer sound and gaming.

Cambridge SoundWorks 1-800-FOR-HIFI

(1-800-367-4434), 8 AM to Midnight, Eastern time 1 PM to 4 AM Greenwich Mean Time In Canada: 1-800-525-4434 Outside US or Canada: Tel: 617-332-5936 Fax: 617-332-9229 www.hifi.com or e-mail us at info@hifi.com

Inspecting For Damage

Examine each speaker unit carefully for signs of shipping damage. If there is any damage do not install the system.

If there is any problem, call the appropriate number listed in the warranty information.

All the items shown in the illustration should be included. If anything is missing, notify the retailer.

Save the carton and its inserts in case you need to transport your *PCWorks FourPointSurround* system later.

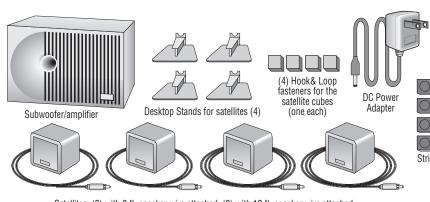
Overview

PCWorks FourPointSurround consists of a powered subwoofer, four satellite speakers and a volume control. All five speakers are magnetically shielded.

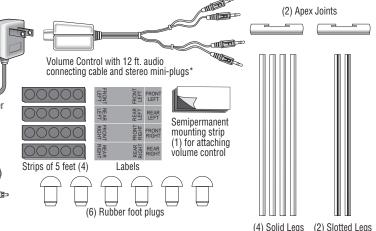
The subwoofer is designed to sit on the floor beneath a desk, and sounds best in this position. The satellites used for the front left and right channels should flank the computer monitor. The satellites used for the rear left and right channels can be placed on the desktop, on floor stands, or attached to other sites with hook and loop fasteners.

Installation Sequence

- 1. Read through the instructions before installing the speakers. The instructions assume you have a 4-channel sound card, one that supports DirectSound3D and has front and rear stereo outputs. If your sound card has a single stereo minijack line output, please read the note under "Volume Control" on page 8.
- 2. Place the satellites and the subwoofer at appropriate sites near your computer. Attach the stands, if necessary.
- To help you identify each satellite's channel later, apply the appropriate preprinted label to the rear of each satellite. Be sure both the satellites chosen for the front and rear have the same cable length.
- 4. Connect the four satellites to the back of the subwoofer enclosure. Leave all the wires accessible.







Speaker Placement

- 5. Connect the Volume Control to the subwoofer and then to the sound card line outputs.
- 6. Connect the power supply adapter.
- 7. Listen to the system and adjust the Subwoofer Level control for the most pleasing bass output.
- You may wish to experiment with satellite placement briefly before concealing the connecting wires and making the installation more permanent.

The front left and front right satellites should be placed to the sides of the monitor. When placing satellites on the desktop, install the desktop stands. If you wish to save desktop space, use the hook and loop fasteners to attach the satellites to the sides of the computer monitor (see page 11).

If your are lucky enough to have side walls close to your listening position, excellent placement for the left rear and right rear satellites is alongside or behind your listening position, slightly above ear level (use the hook and loop fasteners, see diagram A). Do not be concerned if this is not practical, since any rear satellite placement to

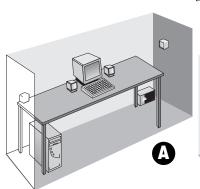
the left and right side of the listening position will provide strong directional and surround effects.

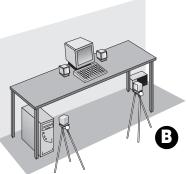
The rear satellites may be installed on their convenient floor stands (see diagram **B**). When listening, the stands should be positioned to the immediate left and right of your listening position. The stands are small enough to be stowed underneath or alongside a desk when not in use.

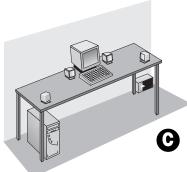
The rear satellites may also be placed in any convenient sites alongside the listener, including sites slightly forward of the listening location. The rear satellites do not have to be at exactly the same height, nor at the same height as the

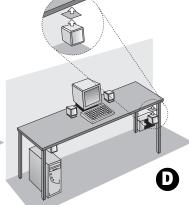
front satellites. Try the extreme corners of a desk using the desktop stands (**C**) or attach the rear satellites under a desktop or at the sides of a desk using the hook and loop fasteners (**D**).

The subwoofer does not contribute to directional sound effects. Its optimum position is on the floor against the wall. The closer the subwoofer is to the corner, the stronger the maximum bass output. Alternately, it can be placed on a shelf or other sites, but its maximum output will be reduced.

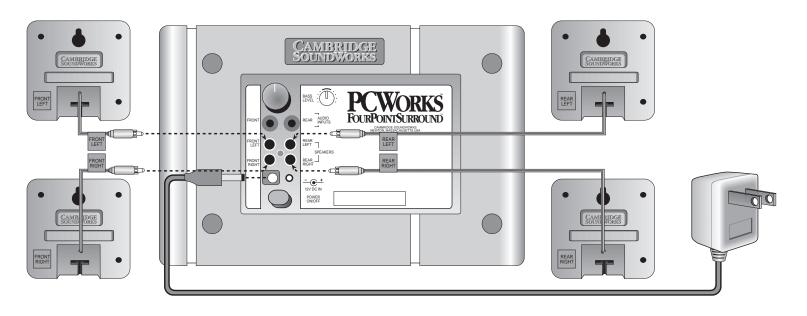








Speaker Wiring Diagram



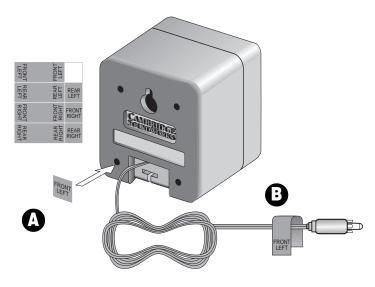
Satellite Connections

One pair of satellites has 9 feet (3 meter) cables and one pair has 12 feet (4 meter) cables. Typically, the satellites in the rear will require longer cable lengths, but the satellites are otherwise identical. If you need extra cable length for the front channel satellites, use the ones with longer cable there instead.

A panel of eight self-adhesive labels is provided to identify each satellite. To start, apply the small, square "FRONT RIGHT" label to the back of a satellite (see diagram A). Then wrap the remaining, longer "FRONT RIGHT" label around the satellite cable just behind the plug (see diagram B).

Insert the satellite's plug into the corresponding output jack on the subwoofer (see Speaker Wiring Diagram).

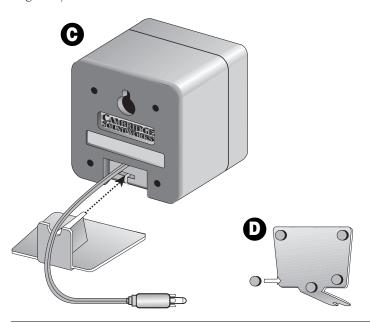
Repeat the process for the remaining three satellites.



Attaching The Desktop Stands

For most applications, the satellite speakers should be used with their desktop stands. Install each stand by inserting it into the "¬¬" shaped socket in the back of each satellite. Make sure to feed the wires through the cut-out in the top of the desktop stands (see diagram C).

For desktop placement, apply the five self adhesive feet to the base of the desktop stands. If you wish to install the rear satellites in the floor stands, do not apply the self adhesive feet to the base of their desktop stands (see diagram **D**).



Attaching The Floor Stands

The rear satellites (with their desktop stands attached) may be installed in their floor stands.

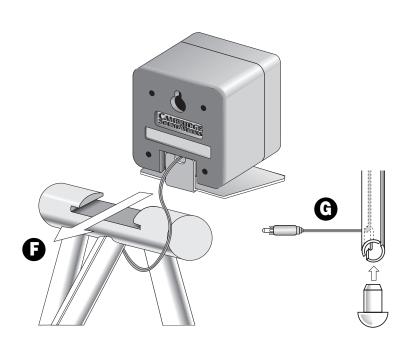
- 1. One leg of each floor stand has a full length slot, with short notches opposite the slot at each end. Insert a satellite cable inside one of these legs by feeding it down the length of the full length slot. At each end, feed the cable through the short notches (see Diagram E).
- 2. Ensure there are no feet attached to the satellite's desktop stand. Insert the satellite end of the leg/cable assembly into the middle socket of the apex joint. Make sure the satellite cable exits through the short notch and not the full length slot (see Diagram **F**).

- 3. Insert the two solid legs into the outside sockets in the apex joint.
- 4. Slide the back of the satellite's desktop stand into the front of the slot in the apex joint. The slot's front is the side further away from the rear leg socket. Make sure the stand is securely pressed into the slot (see Diagram F).
- At the base of the rear leg, gently pull on the satellite cable to remove any unnecessary slack in the cable.
- Insert a rubber plug into the base of each leg, taking care to feed the cable out the short notch in the rear leg (see Diagram G).



Power Supply Adapter

Confirm that the power switch is in the "OFF" position. Insert the power supply's AC plug into the appropriate receptacle. Insert the small DC connector into the "12V DC IN" receptacle on the back of the subwoofer.



The Volume Control

The PCWorks FourPointSurround system comes with a separate wired Volume Control, designed to be positioned close at hand and affixed with the semipermanent mounting strip.

Each plug has either an "F" or an "R" molded into it. One pair of plugs connects to the audio inputs on the back of the subwoofer (SUB). The other pair connects to the sound card line outputs (LINE). Connect the two pairs of signal plugs before affixing the Volume Control (see diagram at right). Connect the "F" LINE plug to the front stereo line output minijack of your sound card. Connect the "R" LINE plug to the rear or "surround" line output minijack of your sound card.

Connect the "F" SUB plug to the "Front" minijack input on the Subwoofer Connect the "R" SUB plug to the Rear minijack input on the Subwoofer (see diagram H).

At this point you may now turn the power switch "ON".

If you have a stereo soundcard (one without a rear stereo minijack line output), connect the "F" LINE plug to the stereo line output

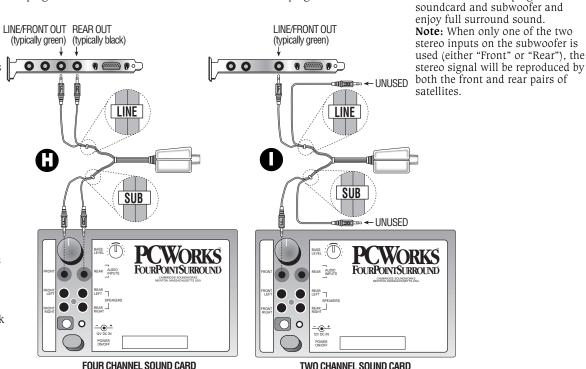
minijack of your soundcard (see diagram I). Leave the "R" LINE plug unconnected. Connect the

"F" SUB plug to the "Front" minijack input on the subwoofer. Leave the "R" LINE plug unconnected.

If you upgrade to a four-channel

sound card, connect both "F" and

"R" LINE and SUB plugs to the



TWO CHANNEL SOUND CARD

Mounting The Volume Control

The enclosed mounting strip is semipermanent—it holds well but can be peeled off gently. Be sure that the mounting surface, such as the computer monitor or your desktop, is smooth and clean.



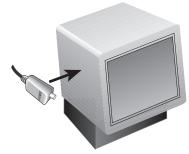
1 Remove protective paper from one side to reveal adhesive.



3 Remove remaining paper strip.



2 Press exposed adhesive side firmly against back of volume control.



4 Press control firmly against mounting surface (desktop, keyboard or monitor).

Adjusting Output Level

In most instances, the *PCWorks FourPointSurround* Volume Control will be the most convenient way to adjust the overall playback level. It responds instantly and doesn't require you to pause games or programs. But there are other output level controls present in software to consider.

Versions of Microsoft® Windows® and most other operating systems offer an on-screen sound level control, while most game programs provide yet another one. For the *PCWorks FourPointSurround* Volume Control to perform at its best, these "software" level controls should be set to an "optimum" position and then left alone.

Set any software volume controls to approximately 75% of their maximum output level. This should allow the *PCWorks Four-PointSurround* Volume Control to achieve the highest output level desired when set to its loudest setting.

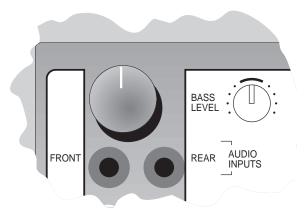
If the PCWorks FourPoint-Surround's maximum output is still not sufficient at the extreme setting of its Volume Control, try increasing one and only one of the software volume controls to increase overall output.

If you find the optimum output level of the *PCWorks FourPoint-Surround* system occurs at too low a setting of its volume control, reduce the setting of one software volume control (preferably the operating system's output level control) to achieve greater control range.

Note: Some software volume controls may introduce distortion when set to their maximum level. Experiment to achieve the cleanest sound.

Subwoofer Level Control

The output of the subwoofer should be adjusted to suit the listener's taste. Start with the volume control in the 12 o'clock position (see diagram below). After using the system for a little while, adjust the control up or down to fine tune it.





Important

Playback Levels

PCWorks FourPointSurround is intended for individual or small group listening and will achieve surprisingly high output levels. However, playing the system continuously at overly loud, distorted levels on heavy bass program material may cause its internal fuse to blow.

The fuse can be replaced *only* by a qualified representative. To avoid this inconvenience and a possible non-warranty repair charge, reduce the playback volume when the system shows obvious signs of stress, i.e. it sounds "raspy," "fuzzy," and/or "muddy."

Optimizing The Sound Of Your System

Have a clear line of sight from your listening position to the satellites. This prevents their higher frequencies from being blocked. It is not necessary for each satellite to be aimed directly at the listener.

The relative strength of low bass depends on how close the subwoofer is to intersecting room surfaces. The most bass output

results from the subwoofer placed on the floor in a corner. The least bass output results with the unit positioned away from any corners or walls.

Once you have adjusted the subwoofer level control, leave it in that position. It should not be used to compensate for differences in recordings or games.

Mounting The Satellites

To a flat surface:

To mount the satellites the side of a monitor or other flat surface, use the self-adhesive "hook and loop" fastener squares.

To the wall:

To wall-mount the cubes on structurally strong surfaces (a wall stud or wood panelling), screw the No. 10 screws into the material. Allow their heads to protrude about 1/4 inch to fit into

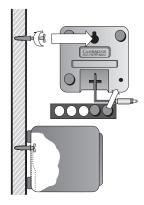
the keyhole slots on the back of each cube (as shown below).

The plastic anchors supplied will be needed to secure the screws in most wall surfaces. If so, drill ¹/₄ inch holes in the wall, then tap the anchors into the holes until they are flush with the wall. Then screw the screws into the anchors until they protrude about ¹/₄ inch.

Be sure to apply the stick-on rubber feet to the back of the satellite cubes. This assures an acoustically secure installation.



Hook and loop fastener mounting



Keyhole slot mounting

Specifications

PCWorks FourPointSurround's Five-channel Amplifier Specifications

Satellite amplifier: One channel driven into a 4 ohm load at less than 1% total harmonic distortion, at 1kHz: 3.5 watts RMS.

Subwoofer amplifier: With a 4 ohm load at less than 1% total harmonic distortion, at 100Hz: 10 watts RMS.

These specifications apply to a *PCWorks FourPointSurround* operating from a 120 VAC line and a 12V DC power adapter.

Technical Support

Inside U.S.A., Canada and Latin America

Creative Labs Inc. Technical Support

If you need technical assistance, call **405-742-6622**. Technical support is available seven days a week from 8:00 am to midnight, Central time.

You can get the latest program and driver updates from Creative Labs' bulletin board, 24 hours a day. Call **405-742-6660**; use modem settings:

Baud rate: 300 to 14400

(V.32/V.42 bis)

Data bits:

Parity: none

Stop bits: 1

You can also send a FAX at 405-742-6633 or write us at:

Technical Support Creative Labs, Inc. 1523 Cimarron Plaza Stillwater. OK 74075

To reach Creative Technical support via the Internet, visit our technical support web site at http://www.creativehelp.com, for troubleshooting help.

For information about this product and other Creative Labs products, visit Creative Zone at http://www.soundblaster.com. Or, call customer Service at 800-998-1000

Faxback information is available by calling 405-372-5227

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Creative Labs (Ireland) Ltd. Technical Support

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UK	Tel:	+44 01734 344 744	
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Operating hours			

Operating hours Mon-Fri: Business Hours

Sat-Sun: Closed

FaxBack is a facility that allows you to obtain product and technical information through facsimile services. In Europe, use the following number: +353 1 820 3667.

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Operating hours (Singapore Time)

Mon-Thu: 9am-6:30pm Fri: 9am-6pm Sat-Sun & Public Holidays: Closed

1-Year Limited Warranty

o the original purchaser, Cambridge SoundWorks, Inc. will warrant the PCWorks FourPoint-Surround system to be free of defects in material and workmanship for a period of one (1) year from date of purchase. With respect to defects, Cambridge SoundWorks will, at its option, replace the product or repair the defect in the product with no charge to the original purchaser for parts or labor.

This warranty does not extend to any defect, malfunction or failure caused by misuse, abuse, accident, faulty hookup, defective associated equipment or use of the speaker with equipment for which it is not intended.

This warranty is valid only when the speaker is returned to the retailer that sold the *PCWorks FourPointSurround* to the original purchaser.

This is the sole and express warranty. This warranty is in lieu of all other warranties, expressed or implied, of merchantability, fitness for purpose or otherwise. In no event shall Cambridge SoundWorks be liable for incidental or consequential damages or have any liability with respect to defects other than the obligations set forth as stated.

To ensure warranty coverage, it is incumbent upon the original purchaser of *PCWorks FourPoint-Surround* to inform the retailer of the defect within the warranty period. The only acceptable method of establishing warranty status is a copy of the original proof of purchase indicating customers name and purchase date.

For advice about your warranty or any information call an audio expert at 1-800-FOR-HIFI (1-800-367-4434).

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SOUNDWORKS

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